

Assessing the Transition-Related Strengths and Needs of Adolescents With High-Incidence Disabilities

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ABSTRACT: *Although meaningful assessment is considered the cornerstone of transition planning, little empirical guidance is available to inform this assessment process. This study examined the transition-related strengths and needs of 160 students with emotional and/or behavioral disorders (EBD) or learning disabilities (LD) from the perspectives of special educators, parents, and youth. Teachers rated youth with EBD as evidencing more substantial needs than youth with LD across all 9 planning domains. Student's ratings were significantly higher than those of their teachers and parents. Variability in the extent to which participants reported having sufficient information to assess each domain, as well as the extent to which they considered each domain to be relevant to planning, highlights the importance of incorporating multiple perspectives into transition planning.*

The postschool outcomes of youth with disabilities have long been considered a revealing barometer of the quality and effectiveness of special education and transition services (Blackorby & Wagner, 1996; Hasazi, Gordon, & Roe, 1985; Turnbull, Turnbull, Weh-meyer, & Park, 2003). Although many youth with high-incidence disabilities leave high school equipped with the skills, supports, and linkages

needed to realize their goals for adulthood, substantial numbers of youth still do not (Benz, Lindstrom, & Yovanoff, 2000; Osgood, Foster, Flanagan, & Ruth, 2007). Attainment of postsecondary goals related to further education, employment, independent living, community participation, civic involvement, and other areas influencing quality of life remain elusive for substantial numbers of youth with emotional and/or behavioral disorders (EBD) or learning

disabilities (LD). Findings from Wave 2 of the National Longitudinal Transition Study-2 (NLTS-2) indicated that a relatively small percentage of young adults with EBD and LD were reported to have completed high school (55.8% and 74.0%, respectively); were working for pay (36.9% and 44.6%, respectively); or enrolled in any type of postsecondary education (21.8% and 34.7%, respectively) up to 2 years after high school (Wagner, Newman, Cameto, & Levine, 2005). Although modest improvements in youth outcomes have been apparent over the last 2 decades, the persistence of disappointing outcomes remains a prominent factor driving current efforts to strengthen the quality and relevance of transition services and supports provided to youth with disabilities (Alwell & Cobb, 2006; Johnson, Stodden, Emanuel, Luecking, & Mack, 2002).

The transition planning process has perhaps garnered the majority of this renewed attention in the last decade (Martin et al., 2006; Test et al., 2004). Although it has long been advocated that sound transition assessment should drive this planning process and serve as the foundation for program delivery (Sitlington, Neubert, & Leconte, 1997), explicit mandates to directly link postsecondary goals with assessment data have emerged only recently. The Individuals With Disabilities Education Improvement Act Amendments (IDEA) of 2004 incorporated new language articulating the central role of assessment in transition planning, requiring that the individualized education programs (IEPs) of transition-age youth must include “appropriate measurable postsecondary goals *based upon age-appropriate transition assessments* [italics added] related to training, education, employment, and, where appropriate, independent living skills” (§300.320(b)). As with most forms of assessment, transition assessment is designed to provide educational teams with information to closely align services and supports with the individualized needs of youth with disabilities, monitor progress toward goals, and make educational decisions. This heightened emphasis on linking assessment with transition goals is consonant with recent legislative and policy efforts focusing on increasing accountability and improving educational results (Bassett & Kochhar-Bryant, 2006; Sitlington & Neubert, 2004).

Findings from several studies reinforce the importance of linking transition planning directly to meaningful assessment. Research involving IEP document reviews has characterized transition goals as vague, overly broad, or template, suggesting that limited attention may be given to aligning transition plans with youths’ unique characteristics and individual goals for life after high school (Grigal, Test, Beattie, & Wood, 1997; Powers et al., 2005; Trainor, 2005b; Williams & O’Leary, 2001). Similarly, large disparities have been identified between the aspirations voiced by students or their parents or both and the substance of students’ transition plans (Grigal et al.; Thompson, Fulk, & Piercy, 2000; Trainor, 2005a). This apparent disconnect was also evidenced in findings from the NLTS-2 addressing the suitability of students’ programs to meet their transition goals (Cameto, Levine, & Wagner, 2004). School staff reported that only 39.6% of youth with LD and 32.6% of youth with EBD received educational programming that staff perceived to be “very well suited” for meeting the youths’ transition-related goals. These discrepancies may contribute to the negative perceptions held by some youth with high-incidence disabilities regarding the relevance of their school experience to their current and future lives (Scanlon & Mellard, 2002; Whitney-Thomas & Moloney, 2001).

The paucity of empirical research available to guide secondary educators in conducting meaningful transition assessment is concerning. The transition assessment literature consists almost exclusively of discussion papers articulating policy and practice recommendations (e.g., Clark, 1996; Neubert, 2003; Sitlington & Clark, 2007; Sitlington, Neubert, Begun, Lombard, & Leconte, 2007), but it currently lacks data-based findings that can inform educators about what they might learn or issues they might encounter during the assessment process. Indeed, Morningstar and Liss (2008) noted that relatively little guidance is available to practitioners, districts, and states seeking to implement fully the transition assessment expectations of IDEA 2004. Because the emphasis and focus of transition assessment often differs in several ways from traditional assessment, additional research is needed to explore several aspects

of recommended practices in transition assessment.

First, transition assessment should be comprehensive, addressing a broad range of domains relevant to an array of postschool activities. This focus contrasts with traditional forms of educational assessment that often address discrete skill areas (e.g., reading fluency, math computation, social skills). Since the seminal work of Will (1984) and Halpern (1985), conceptualizations of transition have evolved from an initial focus on employment to expanded consideration of outcomes related to postsecondary education and training, self-determination, health, community participation, leisure, and many other areas that may contribute to higher quality of life (IDEA, 2004; Turnbull et al., 2003). For youth with EBD and LD, however, secondary education has traditionally focused more narrowly on addressing social-behavioral challenges or academic needs, with less attention given to the broader spectrum of skills, knowledge, experiences, and linkages youth may need after leaving high school (Cummins, Maddux, & Casey, 2000; Dunn, 1996; Lane & Carter, 2006). Research exploring findings from a comprehensive transition assessment could inform educators about the extent to which youth with high-incidence disabilities are likely to require transition services and supports addressing domains extending beyond core curricular areas or behavioral issues. At present, relatively few empirical studies have focused on domains other than academics and behavior, and none have reported comprehensive findings for youth with EBD and LD across several domains.

Second, transition assessment is intended to be strengths-based. Transition plans should build on students' existing strengths and skills to maximize their opportunity for success (Epstein & Rudolph, 2000). This emphasis is evident in the reauthorized IDEA (2004), which added the word *strengths* when requiring that transition services be "based on the individual child's needs, taking into account the child's strengths, preferences, and interests" (§300.43(a)(1)). Yet, much of the extant research involving youth with high-incidence disabilities has focused primarily on identifying deficits exhibited by youth (e.g., Lane, Carter, Pierson, & Glaeser, 2006; Sabornie, Cullinan, Osborne, & Brock, 2005). Additional re-

search is needed to document where strengths might exist alongside needs for youth with high-incidence disabilities, as well as determine whether areas of strength are evidenced more prominently among youth served under different disability categories.

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Third, transition assessment should incorporate the multiple perspectives of individuals who know youth well across contexts. Because postsecondary goals are deeply entrenched in values and beliefs about family, community, adulthood, and disability—and because these values and beliefs may be associated with cultural identity and are not considered universal (Rueda, Monzo, Shapiro, Gomez, & Blacher, 2005)—the contributions of parents to the transition assessment and planning process are especially important (Geenen, Powers, & Lopez-Vasquez, 2001; Hogansen, Powers, Geenen, Gil-Kashiwabara, & Powers, 2008). Cameto et al. (2004) reported that more than one third of parents of youth with EBD or LD said they wanted to have more involvement in the IEP and transition planning process. At the same time, however, almost one quarter of parents reported that transition planning was "not very" or "not at all" useful in preparing their children for life after school. Transition assessment, when conducted in culturally responsive ways, has the potential to increase parent participation and support by providing an avenue for all planning team members to share and discuss their varied perspectives. However, previous research has not explored the extent to which parents and teachers (a) are likely to share similar perspectives on the strengths and needs of youth with disabilities or (b) consider various planning domains to have comparable relevance to school-

based transition planning. Greater consensus among these stakeholders could enhance the overall confidence of the planning team when determining areas in which to focus goal development and transition programming.

Fourth, the transition assessment process should involve youth with disabilities in providing information about their own strengths and needs across multiple domains (Sitlington et al., 2007; Thoma, Held, & Saddler, 2002). Calls to increase the self-determination capacities of youth with disabilities permeate the special education literature driven, in part, by the strong association between greater self-determination and improved in- and postschool outcomes (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Chambers et al., 2007). Although evidence-based practices for increasing student involvement in transition planning meetings have been identified (Martin et al., 2006; Test et al., 2004), previous research has not explored how youth understand their own transition-related strengths and needs. Moreover, it is unclear whether the self-evaluations of youth are likely to align with the views of their parents and teachers. Previous research suggests that youth with high-incidence disabilities tend to evaluate themselves more favorably than do adults in specific domains (Carter, Lane, Pierson, & Glaeser, 2006; Meltzer, Katzir-Cohen, Miller, & Roditi, 2001; Trainor, 2005a). Such information could shed light on how schools might better equip youth to participate in transition planning meetings, engage in goal setting, and self-advocate for needed services and supports.

Despite clear calls to make comprehensive assessment the foundation of high-quality transition planning, there remains an absence of empirical studies documenting what educational teams might learn when conducting transition assessment that incorporates multiple perspectives. This study examined the extent to which educators, parents, and youth converge and diverge in their assessments of students' transition-related strengths and needs across nine planning domains (e.g., employment, self-determination, daily living, health). Specifically, we sought to answer the following research questions:

1. How do educators assess the transition-related strengths and needs of youth with EBD and LD?
2. To what extent do educators, parents, and youth share similar or divergent perspectives on the strengths and needs of students across these nine domains?
3. To what extent do educators, parents, and youth consider these nine domains to not represent appropriate areas for transition planning?
4. To what extent do educators, parents, and youth differ in their need for additional information across transition domains?

METHOD

PARTICIPANTS

Transition assessment findings focused on 160 high school students with EBD ($n = 59$) or LD ($n = 101$). These focus youth ranged in age from 13.8 to 20.7 years ($M = 17.2$ years, $SD = 1.25$), with the majority (68.8%) being male students. Grade level, race and ethnicity, and subsidized lunch status are displayed in Table 1 and generally aligned with demographics of the schools from which students were recruited. Although gender and subsidized lunch status were fairly consistent with national estimates for youth served under these disability categories, European Americans were overrepresented in our sample (Levine, Marder, & Wagner, 2004; U.S. Department of Education, 2005). Chi-square analyses revealed no significant differences between students with EBD and LD on the variables of race and ethnicity ($p = .290$), grade level ($p = .715$), or eligibility for subsidized lunch ($p = .098$). An independent-samples t test revealed no significant differences between these disability groups in age, $t(158) = .69$, $p = .489$. However, a significantly larger proportion of students with EBD group were male (79.7%) relative to students with LD (62.4%), $\chi^2 = 5.18$, $df = 1$, $p = .023$. To be included in this study, students had to (a) be receiving special education services under a primary or secondary disability category of either ED or LD as determined by a school-site multidisciplinary team; (b) provide parental consent, if not their

TABLE 1*Characteristics of Focus Students by Disability Category*

<i>Variable</i>	<i>Students With EBD</i> (<i>n</i> = 59)		<i>Students With LD</i> (<i>n</i> = 101)		<i>All Students</i> (<i>N</i> = 160)	
	%	M (SD)	%	M (SD)	%	M (SD)
Age		17.3 (1.2)		17.1 (1.3)		17.2 (1.3)
Gender						
Female	20.3		37.6		31.3	
Male	79.7		62.4		68.8	
Race/ethnicity						
African American	16.9		8.9		11.9	
American Indian	0		2.0		1.3	
Asian American	0		1.0		0.6	
European American	81.4		84.2		83.1	
Latino	0		3.0		1.9	
Pacific Islander	0		1.0		0.6	
Not reported	1.7		0		0.6	
Grade						
9	13.6		18.8		16.9	
10	35.6		28.7		31.3	
11	25.4		28.7		27.5	
12	25.4		23.8		24.3	
Subsidized lunch						
Eligible	40.7		23.8		30.0	
Not eligible	59.3		62.4		61.3	
Not reported	0		13.9		8.8	

Note. EBD = emotional and/or behavioral disorders; LD = learning disabilities.

own guardian (i.e., under age 18); and (c) provide assent or consent.

The 99 teachers completing the transition assessments reported an average of 13.9 years (*SD* = 9.7 years) of experience in schools and most were women (69.1%) and European American (94.9%). Most teachers reported a bachelor's degree (33.3%) or master's degree (63.6%) as their highest level of education. The primary educational roles reported by participants included special educator (90.9%), general educator (4.0%), case manager (2.0%), related service provider (1.0%), or not specified (2.0%).

HIGH SCHOOLS

Students attended 29 high schools participating in a federally funded project examining student,

family, school, and community factors associated with employment and community involvement outcomes for youth with disabilities during the summer months. To recruit a sample of high schools serving economically, geographically, and racially and ethnically diverse communities within this Midwestern state, we extended invitations using both broad announcements (e.g., state conferences, educational electronic mailing lists) and targeted invitations to specific schools and districts. Participating high schools were located in 23 rural, suburban, and urban school districts. Half of these schools enrolled between 1,000 and 2,000 students, 28.6% enrolled fewer than 1,000 students, and 21.4% enrolled more than 2,000 students. The average high school enrollment of 1,337 was somewhat higher than the national average of 876 (Hoffman, 2009).

Average percentages of students from the following racial and ethnic groups across schools were 8.3% African American ($SD = 14.6\%$; range, 0.3% to 66.8%); 0.9% American Indian ($SD = 1.0\%$; range, 0% to 5.3%); 3.6% Asian American ($SD = 3.9\%$; range, 0% to 13.3%); 79.8% European American ($SD = 23.4\%$; range, 14.1% to 98.7%); and 7.4% Latino ($SD = 9.4\%$; range, 0% to 43.9%). The racial and ethnic distribution of students at participating schools was similar to the percentage distribution of Midwestern states in which approximately 73% of students are European American, 13% are African American, 8% are Latino, 3% are Asian American, and 1% are American Indian (Planty et al., 2008). The percentage of students receiving special education services in each school averaged 15.3% ($SD = 9.0\%$) and those receiving subsidized lunch averaged 23.7% ($SD = 21.2\%$).

TRANSITION PLANNING INVENTORY

The final regulations of IDEA neither define age-appropriate transition nor recommend specific assessment tools. We selected the Transition Planning Inventory (TPI; Clark & Patton, 1997/2006) for this study because it is used widely in schools, regularly advocated in the assessment literature, and the formal tool most frequently recommended by state education agencies (Morningstar & Liss, 2008). Our hope was that findings from this study would be directly applicable to practitioners and would provide immediately useful information to study participants. As a formal, comprehensive assessment tool, the TPI can be used to gather information from multiple stakeholders about multiple domains, providing data-driven information to inform transition plan development.

The TPI is a 46-item standardized assessment tool used to obtain information about students' transition-related knowledge, behavior, and skills from the perspectives of school staff, family members, and students. The 46 items on the TPI are clustered within nine transition domains: employment ($n = 5$ items), further education and training ($n = 5$ items), daily living ($n = 6$ items), leisure activities ($n = 3$ items), community participation ($n = 6$ items), health ($n = 6$ items), self-determination ($n = 5$ items), communication ($n = 4$

items), and interpersonal relationships ($n = 6$ items). Example items on the self-determination domain include *recognizes and accepts own strengths and limitations, expresses feelings and ideas to others appropriately, and sets personal goals*. Examples from the community participation domain include *knows his/her basic legal rights, participates as an active citizen, and knows how to use a variety of services and resources successfully*. For every item on the TPI, raters are asked to assess the focus student's current level of competence using a 6-point Likert-type scale from 0 (*strongly disagree*) to 5 (*strongly agree*). Two alternative response options also are available. If raters do not consider an item to represent an appropriate planning area for the student, then they can indicate *not appropriate*. If raters do not have sufficient knowledge to assess a student's level of competence, then they can indicate *don't know*.

Format. Although the three versions of the scale address the same planning areas and domains, corresponding items are worded slightly differently so that the respondent is always reflecting on the strengths and needs of the youth. For example, the item on the employment domain of the school version stating "Knows the requirements and demands of his/her preferred occupations" is written "I know about jobs I am interested in and what they require" and "Knows about jobs in which he/she is interested in" on the student and home versions, respectively. All three versions of the instrument also include sections requesting (a) student demographic information and (b) anticipated postschool plans in the areas of employment, postsecondary education or training, and living arrangements. Although the student and home versions of the scale include a series of open-ended questions addressing the preferences and interests of students (e.g., Where do you plan to live after high school? What hobbies and leisure activities do you like?), we did not collect this information for this study.

Validity and Reliability. The TPI has been shown to have acceptable validity and reliability (Clark & Patton, 1997/2006; Kohler, 1998/1999; Rehfeldt, 2006; Smith, 1995). During initial development, a pool of 250 items was drawn from an examination of state transition guidelines, as well as a review of the career development, transition, and postschool follow-up literatures. Items

were selected to include competencies representing the core planning areas articulated in IDEA—training, education, employment, and independent living skills—as well as emerging domains reflected in an array of state transition guidelines (e.g., self-determination, health, community participation). A panel of faculty experts and practitioners evaluated initial drafts of the instruments to suggest revisions in wording, structure, and item inclusion, as well as to assess the social validity of the overall instrument. Pilot testing involved 329 school staff, 227 caregivers, and 288 students across 10 states. We conducted exploratory factor analyses on the data provided by educators in our own study, which showed a unidimensional structure for each of the nine domains addressed in the inventory. The variance explained by each of the factors ranged from 67.7% to 78.2% ($M = 74.5\%$), suggesting that the items for each domain shared a substantial amount of common variability.

Reliability tests reported by Clark and Patton (1997/2006) indicated strong internal consistency (average $\alpha = .85$) and adequate test–retest reliability (.86 after 2 weeks). We also conducted reliability analyses with our sample by calculating Cronbach's alpha for each domain separately for educators, parents, and students. Alphas were highest for educators ($M = .91$; range, .90 to .93); followed by parents ($M = .87$; range, .83 to .95); then students ($M = .79$; range, .67 to .89)—a pattern consistent with those reported by Clark and Patton. The tool is considered appropriate for use by students between the ages of 12 and 21 who have a range of disabilities.

PROCEDURES

Participants were recruited as part of a larger study addressing factors influencing the employment and community participation outcomes of transition-age youth with disabilities (cf., Carter, Ditchman, et al., in press; Carter, Trainor, Owens, Swedeen, & Sun, in press). After obtaining Institutional Review Board approval and administrator permission from a total of 34 high schools to conduct the study, project liaisons (e.g., teachers, transition staff, administrators) were identified from each school to assist with participant recruitment. Five of the 34 schools, however, chose to

focus recruitment efforts solely on students with intellectual or severe disabilities. At the remaining 29 high schools, we provided liaisons with a random number list, step-by-step instructions for selecting students, recruitment tracking sheets, and a target number of students to recruit per disability category. Specifically, we asked liaisons to use the randomly generated numbers to select students with EBD and LD from their school rosters in approximate proportion to the overall size of the school (i.e., a minimum of 5 students per school, but up to 1% of the total school enrollment for schools with more than 500 students). Permission forms were mailed home to parents of selected students and returned directly to the liaisons, who then shared with us only the names of students for whom permission had been obtained. Permission was obtained for 69 students with EBD and 104 students with LD to participate in the larger project. Although teachers also recruited students with mild to severe intellectual disabilities for this study, these assessment findings are not reported in this article.

During the spring semester, we asked project liaisons to distribute assessment packets containing the TPI to teachers who worked with and were well-acquainted with each participating student. Students completed the TPI at a time deemed appropriate by their classroom teachers, whereas educators completed the scales independently at a time convenient for them. We sent home parent versions of the TPI scale by mail with instructions to return completed forms to the researchers in a postage-paid envelope. We made follow-up contact if we had not received assessment packets approximately 3 to 4 weeks after the first mailing. We informed teachers and parents that information gathered using the TPI would be compiled and later shared back in a profile form that could be used by transition planning teams. Teacher versions of the TPI were obtained for 160 (92.5%) of the focus students with disabilities; 146 of the focus students (84.4%) also completed a TPI, as did 76 of their parents (43.9%). However, complete assessment information—in which assessments were obtained from the teacher, student, and the parent—were obtained for only 69 of the focus students. Three research associates entered all data into an electronic database, with reliability of data

entry checked for 10% of all assessments. All data entry errors (i.e., less than 1%) were corrected.

DATA ANALYSIS

For all descriptive analyses, we calculated average ratings for each transition domain separately for teachers, parents, and students. Responses of “not appropriate” and “don’t know” were analyzed separately by calculating the percentage of items receiving these ratings within each transition domain. The following comparative analyses were conducted. First, we conducted repeated measures analyses of variance (ANOVAs) to examine differences in the ratings of teachers across the nine domains. We wanted to identify those domains in which students were perceived to have the greatest transition-related strengths and needs. These analyses addressed teachers’ assessment ratings for all 160 focus students. Second, we employed a one-way multivariate analysis of variance (MANOVA) to evaluate differences in these same teachers’ ratings associated with disability category (EBD vs. LD) across all nine domains. We made follow-up comparisons using independent-samples *t* tests with Bonferroni adjustment ($.05/9 = .006$). We hypothesized that lower ratings would generally be obtained for youth with EBD (cf., Carter et al., 2006; Sabornie et al., 2005). Third, we conducted a series of two-way mixed ANOVAs to examine differences in domain ratings associated with respondent (i.e., teacher, parent, student) and disability group (i.e., EBD, LD). Respondent was a within-subjects factor and disability group was a between-subjects factor. These analyses addressed the subset of focus students ($n = 69$) for whom teacher, parent, and student assessments had been completed. This subsample of focus students did not differ from the broader sample with regard to demographic composition. Our primary interests were in the extent to which teachers, parents, and students aligned in their evaluations of each transition domain, as well as whether those assessments differed by disability group. Therefore, we examined the main effect for respondent and the interaction effects between respondent and disability category. We anticipated that the highest ratings would be obtained from students followed by parents and then teachers; these differences were expected to be more pronounced

for youth with EBD (cf., Carter et al.). Follow-up comparisons were used to explore significant effects. Finally, we repeated this previous analysis for the same 69 focus students to examine similarities and differences in the extent to which respondents rated items using “not appropriate” or “don’t know.” Because the two groups of students differed in the proportion of females to males, we included gender as a control factor in all analyses to partial out its potential effect.

RESULTS

HOW DO TEACHERS ASSESS THE TRANSITION STRENGTHS AND NEEDS OF STUDENTS WITH EBD AND LD?

Overall, teachers rated these 160 focus students as having moderate to high strengths across TPI transition domains, with average ratings for all nine domains falling slightly above the midpoint of the 6-point scale (range, 2.75 to 4.32; see Table 2). The highest ratings were found in the area of leisure activities ($M = 4.12$, $SD = 0.95$) and the lowest ratings were given in the area of community participation ($M = 2.96$, $SD = 1.13$). For students with EBD, a one-way repeated measures ANOVA revealed significant differences in teachers’ ratings across domains, Wilk’s $\Lambda = .43$, $F(8, 33) = 5.51$, $p < .001$, partial $\eta^2 = .57$. Follow-up contrasts indicated that ratings on both the leisure activities and daily living domains were significantly higher than ratings on the community participation ($p = .030$ and $p = .014$, respectively) and interpersonal relationships ($p < .001$ and $p < .001$, respectively) domains. Ratings on the health domain were significantly higher than those on the interpersonal relationship domain ($p = .003$). All other domains were rated similarly by teachers (i.e., no significant differences were found).

Differences also were found for teachers’ ratings of students with LD across domains, Wilk’s $\Lambda = .38$, $F(8, 68) = 14.08$, $p < .001$, partial $\eta^2 = .62$. Follow-up contrasts indicated that ratings on the leisure activities, health, interpersonal relationship, and daily living domains were comparable to each other, but significantly higher than ratings on the employment ($p = .028$ for daily

TABLE 2*Teacher Ratings of Focus Students by Domain and Disability Group*

Domain	% Ranking			M	(SD)	% Ranking	
	0 or 1	2 or 3	4 or 5			NA	DK
Community participation							
EBD	16.4	41.0	25.1	2.75	(1.21)	1.7	15.5
LD	10.4	40.3	32.2	3.08	(1.08)	5.0	12.2
Further education							
EBD	22.1	34.5	23.8	2.86	(1.34)	14.5	4.8
LD	9.5	33.5	32.3	3.27	(1.11)	20.2	4.6
Employment							
EBD	16.6	38.3	41.7	3.02	(1.20)	0.3	3.1
LD	6.1	33.9	56.6	3.65	(0.93)	0.2	3.2
Communication							
EBD	21.2	24.6	33.1	3.17	(1.62)	18.6	2.5
LD	9.3	22.3	49.0	3.62	(1.24)	18.5	1.0
Self-determination							
EBD	13.6	47.5	36.3	3.12	(1.05)	0.0	2.7
LD	4.0	31.9	61.2	3.84	(0.87)	0.2	2.8
Relationships							
EBD	19.2	42.4	28.0	2.77	(1.09)	0.6	9.9
LD	2.0	22.7	62.5	4.08	(0.85)	2.2	10.7
Daily living							
EBD	7.9	32.5	40.7	3.54	(1.08)	3.7	15.0
LD	2.2	21.5	55.3	4.00	(0.88)	6.8	13.7
Health							
EBD	10.2	32.5	42.4	3.38	(1.05)	0.6	13.3
LD	1.3	21.1	62.5	4.12	(0.75)	0.8	14.2
Leisure activities							
EBD	4.5	26.6	52.5	3.75	(1.18)	0.0	16.4
LD	1.3	12.2	75.3	4.32	(0.73)	0.3	10.9

Note. Domains are ordered from lowest to highest based on overall ratings across all students.

EBD = emotional and/or behavioral disorders; LD = learning disabilities; NA = not appropriate; DK = don't know.

living and $p < .001$ for the other three domains), further education and training ($p < .001$ for all), and community participation ($p < .001$ for all) domains. Ratings on the leisure activities and health domains were also significantly higher than those on the self-determination ($p < .001$ and $p = .019$, respectively) and communication ($p < .001$ and $p = .023$, respectively) domains. Ratings on the self-determination and employment domains were both higher than those on further education and training ($p < .001$ and $p = .023$, respectively)

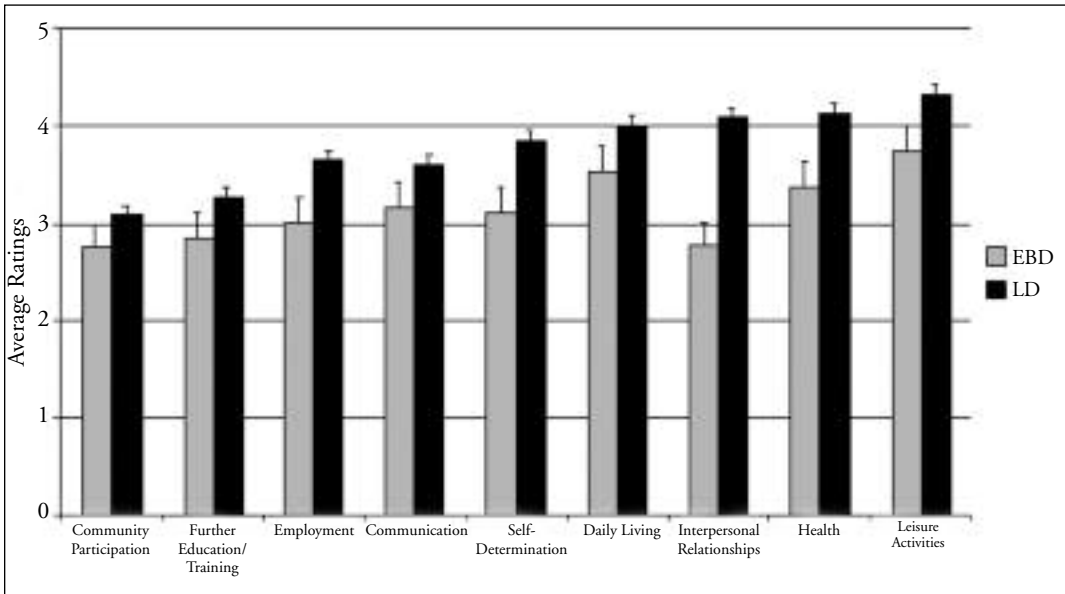
and community participation ($p < .001$ for both) domains.

DO TEACHERS VIEW THE TRANSITION STRENGTHS AND NEEDS OF STUDENTS WITH EBD AND LD DIFFERENTLY?

A one-way MANOVA revealed a significant multivariate effect for disability category across transition domains, Wilk's $\Lambda = .76$, $F(8, 109) = 4.29$, $p < .001$, partial $\eta^2 = .24$. Follow-up independent samples t tests revealed that teachers assigned sig-

FIGURE 1

Average Teacher Ratings of Focus Students by Disability Group and Domain



nificantly higher ratings to students with LD compared to students with EBD in the domains of interpersonal relationship ($p < .001$, $ES = 1.26$); health ($p < .001$, $ES = .84$); self-determination ($p < .001$, $ES = .81$); leisure activities ($p < .001$, $ES = .62$); and daily living ($p = .004$, $ES = .55$). Significant differences were not found on the employment ($p = .008$, $ES = .50$); further education/training ($p = .021$, $ES = .44$); communication ($p = .013$, $ES = .43$); and community participation ($p = .085$, $ES = .33$) domains, after adjusting for multiple comparisons. Figure 1 displays average teacher ratings for each transition domain by disability group.

DO TEACHERS, STUDENTS, AND PARENTS SHARE SIMILAR ASSESSMENTS OF EACH TRANSITION DOMAIN?

Our analysis focused on the 69 students for whom all three respondents completed assessments. For each transition domain, we conducted a two-way ANOVA with respondent (i.e., teachers, student, parent) as a within-subjects factor and disability group (i.e., EBD, LD) as a between-subjects factor. Means and standard deviations by disability group and respondent are reported in Table 3. A significant main effect for

respondent was found for each of the nine domains, indicating that teachers, students, and parents differed in their assessments of students' transition-related strengths and needs (see Table 3 for all multivariate test statistics). Follow-up contrasts indicated that students' ratings were significantly higher than parents' ratings across all nine domains (ES range, 0.60 to 1.06). Similarly, students' ratings were significantly higher than teachers' ratings across every domain (ES range, 0.57 to 0.82) except further education/training ($p = .096$) and communication ($p = .076$). The ratings of teachers and parents did not differ significantly on any of the nine domains.

The respondent \times disability group interaction was significant for three domains, suggesting that differences in ratings varied for students with EBD and LD. The interaction for further education and training was significant, Wilk's $\Lambda = .87$, $F(2, 52) = 3.74$, $p = .031$, partial $\eta^2 = .13$. Follow-up analyses showed that the respondent effect was not significant for the LD group ($p = .085$) but was significant for the EBD group ($p = .030$) where students' ratings were significantly higher than their parents' ratings ($p = .022$). A significant interaction also was found for the self-determination domain, Wilk's $\Lambda = .90$, $F(2, 65) = 3.70$, $p = .030$, partial $\eta^2 = .10$. A respondent effect was

TABLE 3

Average Ratings of Transition Domains by Domain, Disability Group, and Respondent

Domain/Rater	Disability Group		Respondent Effect				Follow-Up Comparisons
	EBD	LD	Wilk's Λ	$F(df_{eff}, df_{error})$	p	Partial η^2	
Employment							
Teachers	2.79 (0.98)	3.65 (0.99)					
Students	3.97 (0.75)	4.01 (0.80)	.65	17.02 (2, 62)	.000	.35	S > T, P
Parents	2.82 (1.08)	3.51 (1.13)					
Further education							
Teachers	2.35 (1.16)	3.52 (1.21)					
Students	3.55 (1.31)	3.41 (1.36)	.81	6.09 (2, 52)	.004	.19	S > P
Parents	2.11 (1.41)	2.85 (1.47)					
Daily living							
Teachers	3.14 (1.03)	3.95 (1.02)					
Students	4.17 (0.73)	4.45 (0.75)	.61	21.30 (2, 66)	.000	.39	S > T, P
Parents	2.83 (1.27)	3.62 (1.29)					
Leisure activities							
Teachers	3.75 (1.01)	4.23 (0.98)					
Students	4.35 (0.69)	4.37 (0.72)	.79	7.98 (2, 60)	.001	.21	S > T, P
Parents	3.29 (1.24)	4.04 (1.25)					
Community participation							
Teachers	2.71 (1.15)	3.06 (1.19)					
Students	3.78 (1.06)	3.72 (1.06)	.64	16.35 (2, 58)	.000	.36	S > T, P
Parents	1.76 (1.58)	2.90 (1.62)					
Health							
Teachers	3.04 (0.93)	4.00 (0.94)					
Students	3.92 (0.73)	4.38 (0.74)	.72	12.87 (2, 65)	.000	.28	S > T, P
Parents	3.17 (0.83)	4.13 (0.87)					
Self-determination							
Teachers	2.87 (1.03)	3.65 (1.07)					
Students	3.75 (0.78)	4.09 (0.80)	.69	14.85 (2, 65)	.000	.31	S > T, P
Parents	2.54 (1.08)	3.67 (1.07)					
Communication							
Teachers	3.20 (1.36)	3.52 (1.36)					
Students	4.13 (0.87)	3.78 (0.86)	.77	8.23 (2, 51)	.001	.23	S > P
Parents	2.89 (1.15)	3.35 (1.17)					
Interpersonal relationships							
Teachers	2.60 (1.03)	3.96 (0.99)					
Students	3.76 (0.78)	4.10 (0.80)	.72	12.37 (2, 64)	.000	.28	S > T, P
Parents	2.73 (0.98)	3.97 (0.99)					

Note. Data address the 69 youth for whom all three respondents provided data. Fluctuating dfs are due to at least one respondent rating all items within a domain as *don't know* and/or *not appropriate*.

EBD = emotional and/or behavioral disorders; LD = learning disabilities; S = Student; P = Parents; T = Teachers.

found for the LD group, $F(2, 42) = 4.21, p = .022$, where students' ratings were significantly higher than their teachers' ratings ($p = .047$). A respondent effect was also found for the EBD group, $F(2, 20) = 7.82, p = .003$, where students' ratings were significantly higher than their parents' ratings ($p = .002$). A significant interaction was found for the interpersonal relationships domain, Wilk's $\Lambda = .79, F(2, 64) = 8.51, p < .001$, partial $\eta^2 = .21$. No respondent effect was found for the LD group, $F(2, 41) = .23, p = .793$. However, a respondent effect was found for the EBD group, $F(2, 20) = 2.51, p < .001$, where students had significantly higher ratings than both their teachers ($p = .002$) and parents ($p < .001$).

TO WHAT EXTENT DO TEACHERS, PARENTS, AND STUDENTS DIFFER IN THEIR NEED FOR ADDITIONAL INFORMATION ACROSS DOMAINS?

Across disability groups, the domains within which teachers most frequently indicated that they had insufficient information to evaluate a students' level of competence (i.e., ratings of *don't know*) were daily living (14.3% of items), community participation (12.8% of items), and leisure activities (11.6% of items; see Table 4). Parents and students most often reported requiring additional information in the domains of further education and training (15.4% and 17.4%, respectively); community participation (7.5% and 7.0%, respectively); and employment (4.9% and 3.2%, respectively).

To examine differences across respondents (within-subjects factor) and disability group (between-subjects factor), we conducted a series of two-way ANOVAs for each of the nine domains. No significant respondent or interaction effects were found on the employment, community participation, self-determination, or communication domains. However, a significant main effect for respondent was found on the daily living, Wilk's $\Lambda = .78, F(2, 65) = 9.04, p < .001$, partial $\eta^2 = .22$; health, Wilk's $\Lambda = .71, F(2, 65) = 13.12, p < .001$, partial $\eta^2 = .29$; interpersonal relationships, Wilk's $\Lambda = .86, F(2, 65) = 5.18, p = .008$, partial $\eta^2 = .14$; and further education and training, Wilk's $\Lambda = .86, F(2, 65) = 8.58, p = .007$, partial $\eta^2 = .14$, domains. Pairwise comparisons

revealed that teachers provided a significantly higher percentage of "don't know" ratings than did students and parents in the domains of daily living ($p < .001$ and $p = .006$, respectively); health ($p < .001$ and $p = .016$, respectively); and interpersonal relationships ($p = .018$ and $p = .006$, respectively). No significant differences were found between the ratings of parents and students across these domains. In the area of further education and training, however, students had a significantly higher proportion of "don't know" ratings than did teachers ($p = .009$). The only significant interaction effect between disability type and respondent was found in the leisure activities domain, Wilk's $\Lambda = .88, F(2, 65) = 4.62, p = .013$, partial $\eta^2 = .12$. Follow-up contrasts revealed that differences between teacher–student ratings were significantly larger for students with EBD ($\Delta = 20.29\%$) than for students with LD ($\Delta = 6.53\%$), $F(1, 66) = 4.16, p = .045$. Differences in teacher–parent ratings also were found to vary for students with EBD ($\Delta = 15.9\%$) versus students with LD ($\Delta = 7.25\%$), $F(1, 66) = 4.52, p = .037$.

TO WHAT EXTENT DO TEACHERS, PARENTS, AND YOUTH CONSIDER EACH TRANSITION DOMAIN TO NOT REPRESENT AN APPROPRIATE AREA FOR PLANNING?

Across disability groups, the domains within which teachers most frequently indicated that items were not an appropriate area for transition planning were further education and training (20.9% of items), communication (17.8% of items), and daily living (8.5% of items; see Table 4). Similarly, parents and students most frequently rated items as *not appropriate* on the domains of further education and training (19.4% and 13.6%, respectively); community participation (12.8% and 6.0%, respectively); and daily living (12.6% and 5.1%, respectively).

We conducted a series of two-way ANOVAs to examine differences across respondents (within-subjects factor) and disability group (between-subjects factor) across each of the nine domains. No significant respondent effects or interaction effects were found on the employment, further education and training, leisure activities, community participation, health, or self-determination domains. A significant main

TABLE 4*Percentage of Items for Which Respondents Indicated Don't Know or Not Appropriate*

<i>Domain/Group</i>	<i>% of Items Rated Don't Know</i>			<i>% of Items Rated Not Appropriate</i>		
	<i>Teachers</i>	<i>Students</i>	<i>Parents</i>	<i>Teachers</i>	<i>Students</i>	<i>Parents</i>
Employment						
EBD	2.61	1.74	8.70	0.87	1.74	4.35
LD	5.22	3.91	3.04	0.43	2.61	0.00
Further education/training						
EBD	4.35	20.87	17.39	16.52	6.09	18.26
LD	6.96	15.65	14.35	23.04	17.39	20.00
Daily living						
EBD	14.49	1.45	7.97	4.35	3.62	10.87
LD	14.13	1.81	2.17	10.51	5.80	13.41
Leisure activities						
EBD	20.29	0.00	4.35	0.00	0.00	0.00
LD	7.25	0.72	0.00	0.72	1.45	2.90
Community participation						
EBD	13.04	10.14	10.87	2.90	3.62	7.97
LD	12.68	5.43	5.80	8.70	7.25	15.22
Health						
EBD	12.32	0.72	4.35	0.00	0.72	0.72
LD	14.49	0.36	2.54	1.45	0.36	1.45
Self-determination						
EBD	0.87	2.61	0.87	0.00	0.00	0.00
LD	3.48	0.00	0.00	0.00	0.87	0.43
Communication						
EBD	2.17	0.00	0.00	17.39	0.00	9.78
LD	2.17	2.72	0.00	17.93	0.00	8.15
Interpersonal relationships						
EBD	7.25	1.45	2.90	0.00	2.17	9.42
LD	10.87	3.62	1.45	3.26	2.17	3.62

Note. EBD = emotional and/or behavioral disorders; LD = learning disabilities.

effect for respondent was found for the daily living domain, Wilk's $\Lambda = .89$, $F(2, 65) = 3.95$, $p = .024$, partial $\eta^2 = .11$, and communication domain, Wilk's $\Lambda = .76$, $F(2, 65) = 10.02$, $p < .001$, partial $\eta^2 = .24$. Pairwise comparisons revealed that students rated a greater proportion of daily living items as inappropriate relative to their parents ($p = .026$), whereas teachers rated a greater proportion of communication items as inappropriate relative to their students ($p = .003$). The only significant interaction effect between disability type and respondent was found in the inter-

personal relationships domain, Wilk's $\Lambda = .89$, $F(2, 65) = 4.00$, $p = .023$, partial $\eta^2 = .11$. Follow-up contrasts indicated that differences between parent-teacher ratings were more pronounced for students with EBD ($\Delta = 9.4\%$) than for students with LD ($\Delta = 0.36\%$), $F(1, 66) = 7.28$, $p = .009$.

DISCUSSION

Effective planning and service delivery for secondary age youth with disabilities should be

anchored to meaningful transition assessment (Sitlington et al., 2007). Despite being advocated as a best practice and articulated in special education legislation, there remains a glaring absence of empirical studies exploring what educational teams might find when conducting transition assessments that attempt to draw on multiple perspectives. This was the first study to examine findings from a comprehensive transition assessment tool used with adolescents with high-incidence disabilities and to explore the extent to which multiple stakeholders align in their assessments of students' transition-related strengths and needs. We found that the transition-related strengths and needs of youth with high-incidence disabilities (a) varied across an array of transition domains, (b) were evaluated somewhat differently for youth with EBD and LD, and (c) may be viewed divergently by youth compared with their teachers and parents. Our findings inform and extend research and practice addressing transition assessment and planning in several important ways.

The transition mandates articulated in IDEA (2004) call on secondary school planning teams to design coordinated services and supports that (a) take into account students' strengths and (b) are directly aligned with the individual needs of students. Our findings indicate that the strengths and needs of youth with high-incidence disabilities are likely to be evidenced across multiple transition domains. Considerable variability in average domain ratings was evidenced both within and across students, suggesting that teachers recognize that strengths coexist alongside needs. Because the transition period signals a shift from deficit- to strength-based approaches for planning (Epstein & Rudolph, 2000), it is essential that planning teams learn about students' strengths and incorporate them into transition plans. At the same time, clear areas of need were evidenced in our aggregated findings—needs that extended beyond the areas of academics for youth with LD and social-behavioral challenges for youth with EBD. Specifically, educators identified community participation, employment, and further education and training as the three areas in which youth evidenced the most limited skills or knowledge. It is noteworthy that these areas correspond with those specifically outlined in IDEA (2004).

Researchers, advocates, and policy makers have cautioned against overly narrow secondary curricula that focus exclusively on core academics (e.g., Bassett & Kochhar-Bryant, 2006; Johnson et al., 2002; Sitlington & Neubert, 2004). Our findings—coupled with disappointing postschool outcomes experienced by youth with high-incidence disabilities across a range of educational, employment, community, and quality of life outcomes—suggest that a broadening (rather than narrowing) of the secondary curriculum may be particularly beneficial for many youth. Transition programming may need to be more intentionally focused on a wider array of relevant instructional domains that will equip youth to achieve their aspirations for life after high school in areas related to training, education, employment, and independent living.

These needs were especially apparent for youth with EBD. We documented substantial—and fairly consistent—differences in educators' ratings of youth with EBD and youth with LD across the majority of transition domains, as evidenced by moderate-to-large effect sizes. As with other research addressing self-determination (Carter et al., 2006); interpersonal skills (Lane et al., 2006); and academic achievement (Sabornie et al., 2005), high school students with EBD were consistently rated as demonstrating lower levels of competence in these nine domains by educators in our study. Although youth with EBD and LD often are served together within cross-categorical programs, these findings reinforce calls to focus additional attention toward addressing the broader—and perhaps deeper—range of instructional and support needs of youth with EBD if improved postschool outcomes are expected to materialize (Lane & Carter, 2006; Wagner & Davis, 2006). At the same time, additional research is needed to identify factors contributing to these differences among youth with EBD and LD. The limited access youth with EBD typically have to participate in transition experiences such as vocational education, community-based instruction, extracurricular activities, and curricular offerings may leave them less equipped with opportunities to acquire these skills and knowledge (Bullis & Cheney, 1999; Corbett, Clark, & Blank, 2002; Wagner & Davis). Differences in ratings might also be attributable to the varied

roles that educators play in the lives of youth with EBD and LD, as well as potential differences in the expectations they hold for these youth. For example, educational placement patterns suggest that special educators may work more often with youth with EBD in self-contained or resource settings (U.S. Department of Education, 2006), giving educators more opportunities to observe needs in areas that extend beyond academic subjects. The support special educators provide to youth with LD may also primarily be directed toward academic needs, leaving these educators to presume that these youth are progressing adequately in other areas.

Transition programming may need to be more intentionally focused on a wider array of relevant instructional domains that will equip youth to achieve their aspirations for life after high school in areas related to training, education, employment, and independent living.

The importance of youth and parent involvement in transition planning has long been advocated as a recommended practice (Geenen et al., 2001; Johnson et al., 2002; Kohler & Field, 2003). Our findings provide empirical support for the importance of also soliciting input from multiple stakeholders and promoting student and parent involvement in the assessment process. Across all nine domains, the ratings of youth with disabilities were significantly higher than those of their parents and/or educators. These findings corroborate those of recent qualitative studies showing that the perspectives of youth may depart from those of other team members on important issues directly related to transition programming (e.g., Hogansen et al., 2008; Leake & Boone, 2007). What might account for these divergent assessment findings? First, research suggests that youth with high-incidence disabilities may experience difficulties self-evaluating their skills, knowledge, or behavioral performance (Carter & Wehby, 2003; Meltzer et al., 2001). Second, large-scale surveys of high school teachers indicated that among the seven component

skills commonly associated with self-determination, special educators rated self-awareness (i.e., knowing and applying one's own strengths, preferences, interests, and limitations) as one of the least important instructional priorities and among the least often taught self-determination skills in general and special education classrooms (Carter, Lane, Pierson, & Stang, 2008; Wehmeyer, Agran, & Hughes, 2000). Third, youth with disabilities—who often have diminished involvement in career development programs, after-school work experiences, community-based activities, or other transition-related experiences—may have less exposure to normative expectations for performance within each of these transition domains, and thus perceive themselves as having adequate skills and knowledge in these areas. In addition to inviting youth to contribute to the assessment process, educators may need to provide frequent opportunities for youth to explore their own strengths and needs, learn about common expectations, and learn to use self-evaluation strategies effectively. Additional research is also needed to explore whether and how such differences in perspectives are associated with or augmented by having a disability or whether they are simply normative for adolescents regardless of disability status.

Whatever their source, differences in the assessments of youth and other members of the transition planning team can have important implications for secondary programming. Youth who perceive that a disconnect exists between their own needs and the educational programming they receive may be unlikely to stay engaged in school or to remain motivated to work toward transition goals (Benz et al., 2000; Sinclair, Christenson, & Thurlow, 2005; Wagner, Newman, Cameto, Levine, & Marder, 2007). Moreover, the importance of youth knowing and accurately communicating their strengths and needs only increases when they exit school services and are expected to independently advocate for their needs in work, postsecondary, or other community environments without the direct assistance of adults. Using an assessment tool that addresses multiple domains provides educators, parents, and youth with talking points during transition planning meetings. Because each respondent would have

had prior opportunity to evaluate items within each domain, the conversation may be more predictable and less anxiety provoking (Kochhar-Bryant, Bassett, & Webb, 2008).

The overall consistency in assessment findings among parents and educators was somewhat unexpected but encouraging. Although research comparing the perceptions of educators and parents on other transition-related issues has yielded mixed findings (e.g., Carter et al., 2006; Lindstrom, Doren, Metheny, Johnson, & Zane, 2007; Zhang, Wehmeyer, & Chen, 2005), the extent to which these two groups share similar perspectives was previously unexplored. Certainly, aggregated findings should not imply that all parents and educators in this study agreed, nor should they intimate that the input of parents is unnecessary or redundant. Yet, when such alignment exists, planning teams may be better positioned to proceed with confidence and to more seamlessly coordinate their efforts. The primary challenge, however, may lie within identifying meaningful avenues for obtaining assessment input from parents. Even in our study, less than half of parents who agreed to participate in the project ultimately returned a completed TPI. This highlights the importance of finding valued approaches and culturally relevant tools for inviting parents to contribute to the transition assessment process. Calls to increase parent involvement in all aspects of the transition process must be coupled with efforts to determine socially valid approaches for gathering their input. Such involvement is likely to be enhanced when schools strive to foster working relationships with parents; promote active communication; offer multiple avenues for providing input (e.g., interviews); demonstrate that parental input is valued; and communicate the importance of the tool to successful planning (Geenen et al., 2001; Kohler & Field, 2003).

The importance of incorporating multiple perspectives into the assessment process is further supported by variability in the extent to which respondents indicated that they had sufficient information on which to evaluate items within each planning area. We found that educators marked "don't know" for a relatively high percentage of items in the daily living, health, leisure, and community participation domains. Although this is not surprising given the classroom contexts

within which teachers often work directly with students, transition planning is intended to be comprehensive, addressing the skills, knowledge, experiences, connections, and supports youth need within and beyond the classroom to attain personally meaningful postschool goals (Sitlington et al., 2007). Many educators may have limited opportunities to observe students in nonacademic domains, which could inadvertently result in students' strengths and needs in relevant domains being overlooked unless additional input from others is sought. Soliciting a variety of perspectives is important because no single person—including, as our data suggest, parents and students—is likely to possess the full spectrum of knowledge about a students' strengths and needs across all relevant transition domains. Additional research is needed to explore the contributions that other stakeholders—such as paraprofessionals, related services providers, counselors, or employers—might make to the transition assessment and planning process. From a practical standpoint, reviewing assessment results, including items about which respondents report having limited knowledge, potentially leads to improved understanding and greater individualization. Such discussion may help educators and parents better understand youths' sense of self and future opportunities, whereas youth may learn more about their strengths and needs from the perspective of adults.

Fifth, we found that a relatively small percentage of items within these nine domains were considered by respondents not to represent appropriate outcomes for planning. To some extent, this offers further social validation of these nine domains for consideration by planning teams, affirming the importance of considering a broader range of domains. This finding does not imply that every domain will necessarily be incorporated into a transition goal or that it will even need to be addressed by the school. Moreover, we did not explore the factors that led respondents to judge individual items to represent inappropriate outcomes. However, conversations about these considerations would be entirely appropriate for the transition planning meeting or other informal meetings among educators, parents, and students. A closer examination of assessment responses suggests that it is individual items within domains—

rather than entire domains—that were more likely to be considered not appropriate for transition planning. For example, approximately half of all educators determined that knowing how to gain entry into a General Education Development (GED) program was an inappropriate outcome for planning for participating students.

LIMITATIONS AND RESEARCH RECOMMENDATIONS

Given the paucity of empirical studies of the transition assessment process, additional research is needed to address the following limitations of this study. First, our primary interest was in understanding stakeholder perceptions of broad-level transition planning and outcome areas. Therefore, our analyses focused on aggregated ratings across items (i.e., average ratings) in each of the nine transition domains, rather than on reporting item-level ratings. A student may exhibit both strengths and needs on different items within a single domain and it is an understanding of performance on these individual items that planning teams will be most interested in obtaining. Additional research is needed to explore individual domains (e.g., employment, health, self-determination) in greater depth to elucidate specific skill and knowledge areas most critical to the postschool success of youth with disabilities.

Second, we obtained information about students' strengths and needs using a single transition assessment tool. Whether the descriptive and comparative findings documented in this study would be found with other assessment tools that conceptualize or operationalize transition domains differently remains unclear (cf., Enderle & Severson, 2003; Martin & Juan, 2008; McCarney & Anderson, 2000; Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007). Moreover, recommended practices emphasize that assessment information should be obtained and combined from multiple data sources (Neubert, 2003; Sitlington & Clark, 2007). Although our study represents a logical and tractable launching point for investigating transition assessment, future research should examine the extent to which the assessment findings described in this study are evidenced across other formal assessment tools, as

well as correspond with data obtained through situational or other more direct assessments.

Third, we did not collect comparison data involving youth without disabilities and their parents and teachers. Documented differences among the perceptions of youth with disabilities and their parents or educators in this study may or may not be typical of adolescents in general. Moreover, we were not able to ascertain whether youth without disabilities exhibit strengths and needs in similar transition domains. Future research should explore whether secondary education should attend to a broader array of life domains for all students and, if so, delineate where within the general curriculum such issues would be addressed.

Fourth, differences in ratings across respondents may be partially attributable to the clarity of assessment item wording, as well as to the ways in which youth, parents, and educators interpreted individual items. For example, ambiguities in item wording could incline respondents to choose "not applicable" or "don't know," as well as influence the ratings they assign to items. Although such differences in interpretation could readily be addressed through discussion during planning meetings, we were not able to explore this possibility within the context of this study. Although the purpose of our study was not to evaluate the reliability and validity of the TPI *per se*, additional research should focus on strengthening further the psychometric properties of this and other formal transition assessment tools. Indeed, researchers in the area of secondary transition would benefit greatly from the availability of a transition assessment tool that could be used as (a) a descriptive measure to characterize the transition-related strengths and needs of study participants and (b) an outcome measure to assess the progress of students associated with specific secondary-level interventions.

Fifth, we did not explore the link between assessment findings and the transition planning process in this study. Although we compiled transition profiles for planning teams (i.e., brief summaries of item- and domain-level ratings across respondents), whether and how these teams ultimately interpreted these assessment results, incorporated them into transition plans, and navigated any differences in views held by various team

members remains uncertain. Additional research should be directed toward (a) determining whether and how planning teams use assessment information to inform service delivery, (b) developing evidence-based models for linking transition assessment with planning and intervention, and (c) evaluating the effect of sound transition assessment on the extent to which youth ultimately achieve valued outcomes.

Finally, although the demographics of focus students and the high schools they attended generally aligned with those of the districts, state, and region in which the project took place, our sample underrepresented racial and ethnic minorities compared to national demographics and was drawn from somewhat larger high schools. Readers should carefully consider the extent to which focus students in this study are similar to the population of youth with whom they work. At the same time, additional research is needed to examine more closely how transition assessment findings may be influenced by considerations that reflect the sociodemographic backgrounds of key members of transition planning teams. For example, differences in the racial and ethnic, linguistic, and socioeconomic backgrounds among educators, parents, and youth may contribute to greater variability in the ratings of these respondents. Moreover, participating high schools were purposely selected and we used nonproportional stratified random sampling within each school, which did not account for differences in the proportion of youth served under each disability category. As future empirical studies on this topic are conducted, these limitations should be addressed.

High-quality transition services are one component designed to achieve the national policy of "ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities" (IDEA, 2004, Sec. 614(d)(2)(D)(5)). Aligning these services with a clear understanding of the needs, strengths, interests, and aspirations of youth and their families is predicated on the availability of sound, meaningful assessment data. As Morningstar and Liss (2008) noted, "the lack of good transition assessments may lead to unclear or conflicting transition outcomes, services, and goals" (p. 53). Our findings should serve to strengthen

calls to weave multiple perspectives more tightly into the assessment and planning process.

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